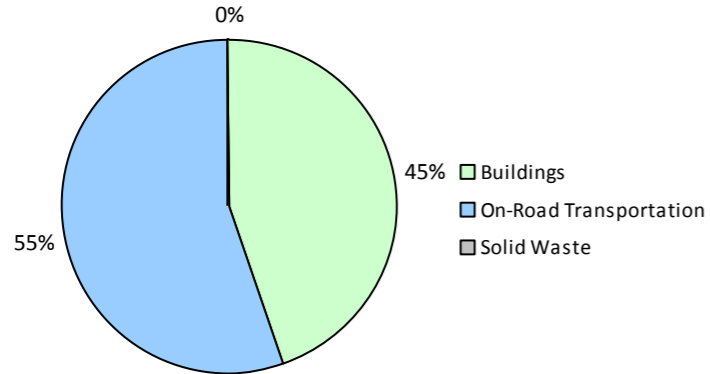
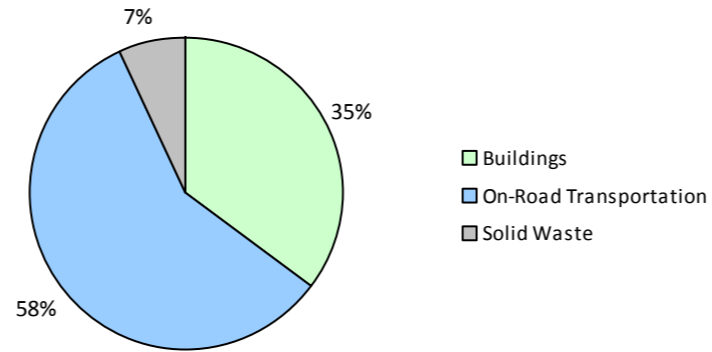


### Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

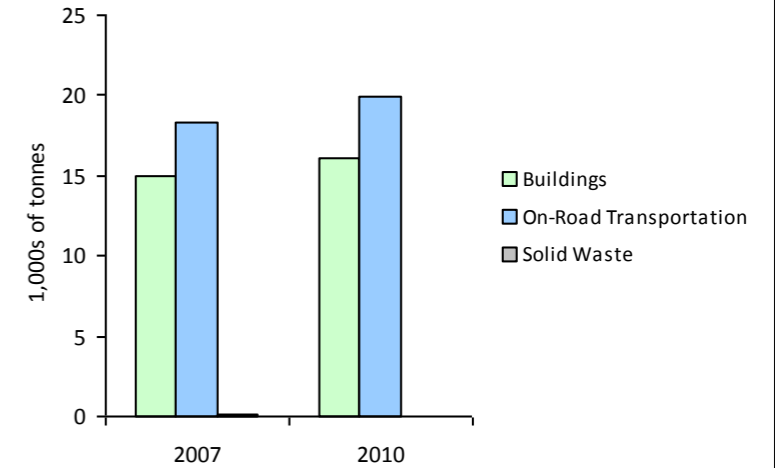
2010 GHG Emissions Sources (Total for this Community)



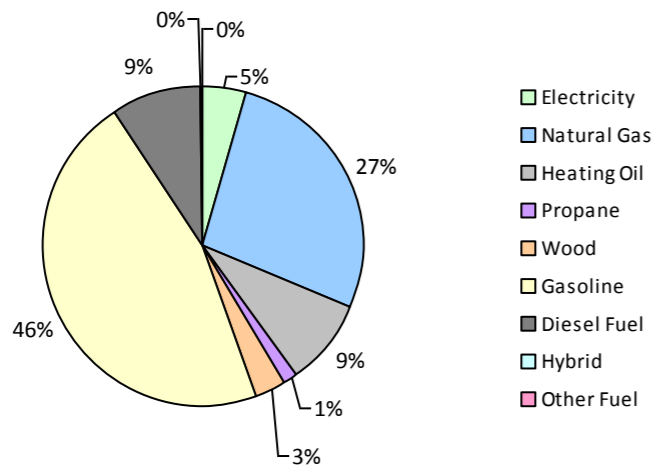
2010 GHG Emissions Sources (Total for BC)



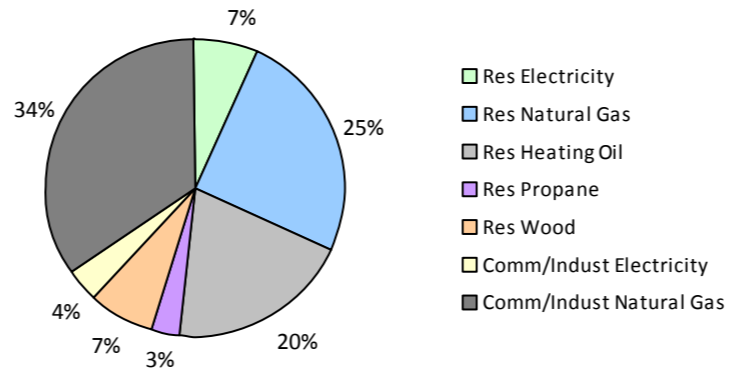
GHG Emissions Comparisons for this Community



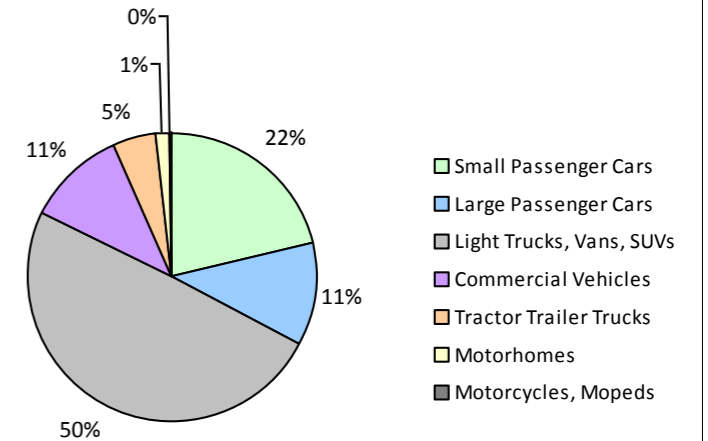
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



## Ladysmith Town 2010 Community Energy and Emissions Inventory

*Monitoring and reporting on progress towards greenhouse gas emissions reduction targets*

### Core Items

On-Road Transportation		2007					2010				
		Connections	Consumption	Avg VKT (km)	Energy (GJ)	CO2e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Hybrid			14,400	24	0			16,100	58	4
	Gasoline	1,115	1,605,806 L	15,400	56,203	3,818	1,194	1,804,415 L	16,200	63,155	4,048
	Diesel Fuel	47	80,666 L	25,600	3,089	220	52	87,540 L	24,900	3,353	231
Large Passenger Cars	Hybrid						10	12,438 L	21,700	436	28
	Gasoline	568	987,163 L	15,400	34,551	2,344	559	985,857 L	15,600	34,504	2,211
	Diesel Fuel			17,100	181	13			9,300	173	12
	Other Fuel			9,200	31	2					
Light Trucks, Vans, SUVs	Hybrid								27,600	553	36
	Gasoline	1,422	3,482,142 L	17,200	121,875	8,338	1,629	4,211,248 L	18,300	147,394	9,550
	Diesel Fuel	56	112,855 L	11,600	4,323	307	40	96,927 L	14,700	3,713	256
	Other Fuel			13,400	288	18			11,300	98	6
Commercial Vehicles	Gasoline	81	221,150 L	16,100	7,740	520	94	260,087 L	16,300	9,104	582
	Diesel Fuel	123	422,005 L	19,100	16,162	1,136	165	622,919 L	21,300	23,857	1,626
	Other Fuel			9,700	92	6			13,200	63	4
Tractor Trailer Trucks	Diesel Fuel	27	426,451 L	34,800	16,333	1,148	23	390,659 L	39,100	14,963	1,020
Motorhomes	Gasoline	33	76,949 L	16,600	2,693	180	33	77,851 L	16,500	2,724	173
	Diesel Fuel	21	66,030 L	16,800	2,529	178	13	39,877 L	16,000	1,528	105
	Other Fuel			12,700	90	6					
Motorcycles, Mopeds	Gasoline	61	14,922 L	5,400	522	36	89	25,490 L	6,400	893	57
Buses	Gasoline			18,100	204	14					
<b>Totals</b>		<b>3,554</b>	<b>7,496,139 L</b>	<b>16,334</b>	<b>266,930</b>	<b>18,284</b>	<b>3,901</b>	<b>7,496,139 L</b>	<b>17,237</b>	<b>306,569</b>	<b>19,949</b>

## Ladysmith Town 2010 Community Energy and Emissions Inventory

### *Monitoring and reporting on progress towards greenhouse gas emissions reduction targets*

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	56,838 GJ	56,838	1,152	N/A	55,021 GJ	55,021	1,115
	Heating Oil	N/A	47,439 GJ	47,439	3,344	N/A	45,922 GJ	45,922	3,141
	Propane	N/A	8,181 GJ	8,181	499	N/A	7,919 GJ	7,919	483
	Natural Gas	1,452	83,455 GJ	83,455	4,186	1,586	78,768 GJ	78,768	3,951
	Electricity	3,609	45,728,707 kWh	164,623	1,143	3,774	46,406,023 kWh	167,062	1,160
Commercial/Small-Medium Industrial	Natural Gas	140	82,706 GJ	82,706	4,149	92	111,781 GJ	111,781	5,607
	Electricity	354	19,280,640 kWh	69,410	482	381	23,126,853 kWh	83,257	578
<b>Totals</b>		<b>5,555</b>		<b>512,652</b>	<b>14,955</b>	<b>5,833</b>		<b>549,730</b>	<b>16,035</b>

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	625 t	N/A	132	0	590 t	N/A	0
<b>Totals</b>		<b>0</b>			<b>132</b>	<b>0</b>			<b>0</b>

### Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	2		0	0	1		0	0
<b>Totals</b>		<b>2</b>			<b>0</b>	<b>1</b>			<b>0</b>

## Ladysmith Town 2010 Community Energy and Emissions Inventory

*Monitoring and reporting on progress towards greenhouse gas emissions reduction targets*

### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 7,899)			2010 (Population: 8,243)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	24	0	12,438 L	1,047	68
Gasoline	6,388,132 L	223,788	15,250	7,364,948 L	257,774	16,621
Diesel Fuel	1,108,007 L	42,617	3,002	1,237,922 L	47,587	3,250
Other Fuel	0 L	501	32	0 L	161	10
Wood	56,838 GJ	56,838	1,152	55,021 GJ	55,021	1,115
Heating Oil	47,439 GJ	47,439	3,344	45,922 GJ	45,922	3,141
Propane	8,181 GJ	8,181	499	7,919 GJ	7,919	483
Natural Gas	166,161 GJ	166,161	8,335	190,549 GJ	190,549	9,558
Electricity	65,009,347 kWh	234,033	1,625	69,532,876 kWh	250,319	1,738
Solid Waste	625 t	0	132	590 t	0	0
<b>Grand Totals</b>		<b>779,582</b>	<b>33,371</b>		<b>856,299</b>	<b>35,984</b>

### Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

### Supporting Indicators

No new supporting indicator data have been provided in the 2010 reports. Work is currently underway to produce a complete second round of data for the indicators below in the 2012 reports (available in 2014). In the interim, we are including the same supporting indicator data that was provided in the 2007 reports. Feedback is requested on all supporting indicators; please contact us directly at

#### Housing Type - Private dwellings by structural type

Housing type is important for reducing building-related GHG emissions and energy consumption. A trend toward fewer single family dwellings indicates an increase in residential density, which is known to reduce transportation-related GHG emissions.

	1996		2001		2006	
	Units	%	Units	%	Units	%
Single Detached House	1,865	42	2,120	79	2,290	72
Semi-Detached House	145	3	60	2	100	3
Row House	150	3	190	7	225	7
Apartment, Duplex	40	1	35	1	75	2
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	285	6	280	10	350	11
Other Single Attached House	0	0	5	0	15	0
Movable Dwelling	60	1	0	0	130	4

#### Commute to Work - Employed labour force - by mode of commute

An increase in the number of people choosing to walk, cycle and use transit reduces GHG emissions. More compact, complete, connected communities should see an increase in the use of these transportation modes.

	1996		2001		2006	
	Units	%	Units	%	Units	%
Car, Truck, Van as Driver	2,035	80	2,260	86	2,660	86
Car, Truck, Van as Passenger	170	7	140	5	180	6
Public Transit	0	0	10	0	15	0
Walked	270	11	160	6	200	6
Bicycle	25	1	30	1	10	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	10	0
Other Method	30	1	20	1	30	1

#### Parks and Protected Greenspace

Parks and protected greenspaces are important for the protection and enhancement of community carbon sinks.

	2009	
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	27	2
Agricultural Land Reserve	212	17
Other land use	981	80
Total Parks and Protected Area	27	2
Total Land Area	1,221	100

\* Total is net of Indian Reserves  
\*\* Quantity of parkland may be underestimated

#### Residential Density

Increasing residential densities is known to reduce vehicle use resulting in fewer transportation-related GHG emissions. There are many additional benefits from more compact development.

	2009	
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	27	2
Agricultural Land Reserve	212	17
Other land use	981	80
Total Parks and Protected Area	27	2
Total Land Area	1,221	100

\* Net of Crown land, parks, Indian Reserves, water features, airports, ALR, waste disposal site

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**Supporting Indicators Under Consideration**

Work is currently underway to produce a complete second round of supporting indicators for the 2012 reports (available in 2014). These reports will new data for the five supporting indicators included in the 2007 and 2010 Reports:

- **Housing Type:** Private dwellings by structural type
- **Commute to Work:** Employed labour force - by mode of commute
- **Commute Distance**
- **Residential Density**
- **Parks and Protected Greenspace**

And in addition, the 2012 reports we are working to be able to include:

- **Proximity to Transit**
- **Building Energy Intensity**
- **Building Floor Space**
- **Waste Diversion**

We are continuing to work towards reporting on even more supporting indicators in the future including:

- **Proximity to Services** (e.g. destinations such as grocery store, school, other retail etc.)
- **Transit Ridership**
- **Water Use**
- **Impervious Surface Cover:** % change in impervious surface cover
- **Tree Canopy Cover:** % change in tree canopy cover
- **District Energy:** # and energy output (e.g. buildings connected, energy consumed in GJ or kWh) of district energy systems by energy type e.g. renewable or non-renewable)
- **On-Site Renewable Energy:** # and energy output (in GJ or kWh) from households producing and/or consuming on-site renewable heat (e.g. biomass, solar thermal, geo-exchange) and/or electrical (e.g. solar photovoltaic, small wind, small scale hydro) energy
- **Energy Recovery** from waste energy (GJ or kWh) recovered from waste (e.g. from landfill gas, sewage treatment, industrial operations, farm)

Please give us feedback by contacting us directly at [CEEIRPT@gov.bc.ca](mailto:CEEIRPT@gov.bc.ca)

Many local governments have been undertaking a significant amount of climate action in both the corporate and community-wide spheres, as demonstrated in both the public reports from the Climate Action Revenue Incentive Program (CARIP) <http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>, and on the <http://toolkit.bc.ca> website. These two resources may be helpful to those who are interested in learning from other BC local governments. The toolkit also contains additional information and resources including decision-support/planning frameworks and tools for undertaking actions to reduce GHG emissions and energy consumption.

## This is your local government's 2010 Community Energy and Emissions Inventory (CEEI) Report

### What is a CEEI Report?

CEEI Reports are a result of a multi-agency effort to provide a province-wide solution to assist local governments in BC to track and report on community-wide energy consumption and greenhouse gas (GHG) emissions as well as supporting indicators every two years. CEEI Reports are one of the many resources available through the Climate Action Toolkit (<http://www.toolkit.bc.ca>), a web-based service provided through the ongoing collaboration between UBCM and the Province.

### Why does my local government need a CEEI Report?

A community energy and GHG emissions inventory can be a valuable tool that helps local governments plan and implement GHG and energy management strategies, while at the same time strengthening broader sustainability planning at the local level. CEEI reports fulfill local governments' Climate Action Charter commitment to measure and report their community's GHG emissions profile, establish a base year inventory for local governments to consider as they develop targets, policies, and actions related to BC's Local Government Act requirements, fulfill Milestone One requirements for those local government members of the Federation of Canadian Municipalities' (FCM's) Partners in Climate Protection (PCP) program, as well as supporting local government efforts to monitor progress towards Regional Growth Strategy objectives.

### A first in North America!

CEEI is a first in North America and a first step for BC communities. The 2010 CEEI Reports are based on best available province-wide data. The accuracy and detail of CEEI reports will continue to improve to meet increasing local and provincial government information needs. Improvements have been made from the original draft 2007 CEEI Reports posted in Spring 2009. These include estimates for residential heating oil, propane and wood use, breaking out small from large industrial buildings, including updated land-use change and new agricultural sectors as 'memo items'. Following the 2010 CEEI Reports, inventories will be generated every two years, and will continue to improve as government information needs, international protocols and new data sources emerge.

### For More Information

The full list of all BC local government 2010 CEEI Reports, User Guide, Technical Methods and Guidance Document, and additional information on the Supporting Indicators are available at:

<http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html> For guidance on target setting and community actions, go to <http://www.toolkit.bc.ca> and

<http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm>

### We Need Your Feedback

To continue to guide us on CEEI, please take the time to contact us directly at [CEEIRPT@gov.bc.ca](mailto:CEEIRPT@gov.bc.ca)

### Notice to the Reader

This CEEI Report uses information from a variety of sources to estimate GHG emissions. While the methodologies, assumptions and data used are intended to provide reasonable estimates of greenhouse gas emissions, the information presented in this report may not be appropriate for all purposes. The Province of BC and the data providers do not provide any warranty to the user or guarantee the accuracy or reliability of the data contained in this report. The user accepts responsibility for the ultimate use of such data. We need your help to make these reports better,